came upon a fully occupied house where women and younger children were present in larger numbers. The inference is inescapable that the men and boys died in elevated numbers because they fought to protect the women and younger children, exposed themselves disproportionately to the fire of the murderers, and constituted a clear and present danger to the killers that the latter themselves recognized. Police and paramilitary forces the world over are trained to shoot the most dangerous adversary first. The heroism of the Bari men who made themselves dangerous to their attackers deserves to be remembered along with their tragedy.

Additional data support the conclusion that disproportionate male deaths resulted from disproportionate male combativeness. At least 30 children were left fatherless by the deaths of grown men. However, there was only 1 certain orphan produced by the death of an adult woman, and while there are a couple of cases with missing information here, 7 of the 10 murdered women either had no dependent children at the time of their deaths or died with them. It appears that as the men fought, the women were absorbed in removing their children from danger. It may be that the rapidity and near-universality of Bari widow remarriage and the comprehensive acceptance of the paternal role by stepfathers were related to the unending danger a man felt of having his own children orphaned. A situation in many ways parallel produced the Christian institution of godparenthood.

In sum, diverse, apparently unrelated features of Bari life—migrations among multiple longhouses, the morning scheduling of hunting, the habitual exclusion of women from hunting expeditions, practices of marriage and adoption—appear to have been heavily influenced by chronic warfare. In this situation, men fell in disproportionate numbers not so much because they chose to make war as because they defended their women and children from it. The parallelism of Bari casualty figures with those from cases of “primitive war” suggests a robust sexual division of labor in response to deadly threat.

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A Role for Magnetoreception in Human Navigation? 1

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Since the first experimental finding almost three decades ago that European robins orient on the earth’s magnetic field during their migratory period, the ability to perceive the earth’s magnetic field (magnetoreception) and then employ that sense in navigation has been experimentally demonstrated in numerous other species of birds, fish, amphibians, reptiles, invertebrates, and mammals (Witschko 1993). Whether humans have this capability is, however, in dispute. Whereas some experiments appear to indicate human magnetoreception, others arguably do not. Furthermore, standard analyses of noninstrument navigation by such expert wayfinders as Pacific island seafarers allow no role for magnetoreception. Yet recent instances in which noninstrument navigators sailing in canoes over the open Pacific have been able to orient themselves when it was impossible for them to take bearings from the stars, sun, or ocean swells suggest that they may be able to orient themselves on the geomagnetic field.

The techniques for experimentally investigating magnetoreception and navigation have been pioneered in studies of birds in laboratory and field situations (Schmidt-Koenig 1979, Presti 1985). For example, the initial research on the European robin [Erithacus rubecula] showed that during the spring migration period caged robins tended to cluster toward the northern end of their cage and that they tended to cluster toward the southern end of their cage when the ambient magnetic field was reversed by means of Helmholtz-type coils (Merkel and Witschko 1965, Witschko 1968, Witschko and Witschko 1972). That birds orient on the earth’s magnetic field during flight was first demonstrated with homing pigeons, a species which previously had been shown to be able to navigate by the sun. After finding that homing pigeons could still return to their home base under conditions of heavy overcast, Keeton (1971) established that they became disoriented in heavy

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overcast when magnets attached at the base of their necks apparently disrupted their magnetoreception.

These and other experiments have led researchers to conclude that migrating and homing birds employ magnetoreception along with cues from the sun by day and stars by night to orient their flight. The evidence further suggests that the relationship between magnetic, sun, and star compasses is hierarchical. An innate magnetic sense appears to be ontogenetically primary in that young birds can immediately use magnetoreception for orientation but have to learn to employ the sun’s passage across the sky during the day and the rotation of the stars at night. They then apparently prefer to navigate by the presumably more precise celestial cues rather than geomagnetic ones but nonetheless remain able to switch to their magnetic sense to navigate when a heavy overcast obscures the sun or stars or in order to recalibrate their sun or star compass.

Magnetic lines of force surrounding the earth have both polarity and inclination or dip. An animal with a natural polarity compass would be able to identify the direction of north from anywhere on the earth’s surface except near the magnetic poles. Although an animal with a natural inclination compass would not be able to distinguish between north and south as such, it could identify the “poleward” and “equatorward” directions in each hemisphere from the steep angle of the lines of force ascending from the south geomagnetic pole and descending toward the north geomagnetic pole and the flattening out of those lines over the equatorial region. Experiments with caged European robins involving manipulation of the horizontal and vertical components of an artificial magnetic field generated around their cage indicated that this species employs an inclination compass rather than one based upon polarity (Wiltschko and Wiltschko 1972). All other bird species so tested have been shown to employ an inclination compass, as have a number of other vertebrate and invertebrate species. The compasses of salmon and mole rats appear, however, to be based on polarity (Wiltschko 1993).

**EXPERIMENTAL RESEARCH ON HUMAN MAGNETORECEPTION**

Robin Baker, the biologist who initiated the study of human magnetoreception in the late 1970s, has employed three types of experiments—chair, bus, and walkabout—to investigate this sense [Baker 1980; 1981; 1989:33–58; 1993]. In the chair experiments the subject sits in a rotating chair, puts on a blindfold and earmuffs to eliminate visual and acoustic cues, and then is rotated and stopped a number of times. Each time the chair stops the subject is asked to name the compass direction toward which he or she is facing. In the bus experiments groups of blindfolded or sighted subjects are driven on winding journeys to a test site where they are asked to indicate the direction to their starting point, usually by drawing an arrow on a sheet of aligned paper. In the walkabout experiments groups of sighted subjects are taken for walks in unfamiliar woodlands where no distinct landmarks can be seen. At their destination they are asked to draw an arrow in the direction of their starting point on an aligned sheet of paper. The role of magnetoreception is investigated by comparing the performance of subjects exposed to an altered ambient magnetic field with control subjects or by exposing groups of subjects to different altered fields. The ambient magnetic field is altered in the chair experiments by large electromagnetic coils and in the bus and walkabout experiments by having subjects wear at their temples, either just before or during the experiment, covered metal bars, some of which are magnets and some not.

Baker reports that in an unaltered geomagnetic field subjects tended to point more toward their starting point (or facing compass direction) than away from it and that altering the ambient magnetic field skewed their estimates in ways basically consistent with the magnetoreception hypothesis. Using circular statistics [see Batschelet 1981] to show that the homeward (or facing compass direction) component of individual pointings was significantly greater than expected by chance according to V-tests and that changing the ambient magnetic field significantly altered pointing abilities, Baker argues that his experiments support the hypothesis that humans possess an inexact but statistically significant ability to orient by unconsciously sensing the geomagnetic field.

From his experimental work with human subjects and extensive work carried out by others on birds, Baker (1989:240) hypothesizes that magnetoreception takes place in one or more discrete systems located in the head, probably in the block of tissue that includes the back of the eyes and the ethmoid/sphenoid sinus complex. Although he has developed some experimental evidence in favor of the latter as the primary site of magnetoreception, Baker (1989:236–38) notes that Leask’s (1977) theory that magnetoreception takes place in the optical system has received support from bird experiments indicating that it works only when some ambient light is present (Schmidt-Koenig 1979) and that direction-sensitive cells in the nucleus of the basal optic root and the optic tectum respond to directional changes of the magnetic field (Semml et al. 1984, Semml and Detombe 1986).

On the basis of such experimental findings as the impact on magnetoreception of exactly where bar magnets are placed on the heads of experimental subjects and how subjects’ sleeping orientation (e.g., north-south, east-west) prior to tests apparently affects this sense, as well as related research on birds and other animals, Baker (1989:230–81) has developed a model of the physical basis of human magnetoreception. He proposes that a magnetoreception system might consist of an array of magnetically sensitive cells (perhaps containing biogenic magnetite particles such as those found by Kirschvink, Kobayashi-Kirschvink, and Woodward [1992] in the brain tissue of various animals including humans) which have a common alignment and are ramified by nerves connected to the central nervous system. As this array moves through the geomagnetic field, electric,
magnetic, or pressure events invoke the patterned firing of the ramifying nerves, which is relayed to the central nervous system and decoded in the form of directional information. Each night during sleep the alignment of these particles is relaxed and then reset (or new particles are aligned) according to the sleeping position of the person. This alignment establishes the reference by which humans unconsciously judge their movement during the day through the geomagnetic field, enabling them to maintain a general idea of the bearing back to their home base and of the direction in which they are facing.

Baker interprets the unconscious nature of magnetoreception in terms of evolutionary ecology. An unconscious directional sense which enables foraging animals (including humans) to devote their attention to searching for resources and watching out for predators and yet still be able to turn back toward their home base at any time would be of selective advantage. His attempts to determine whether humans employ a polarity or an inclination compass by laboratory studies involving shifting of the magnetic field and field studies in which Southern Hemisphere subjects were tested in the Northern Hemisphere have been inconclusive (Baker 1989: 251–56).

Baker’s work was initially received with much skepticism and continues to be controversial. A number of attempts to replicate his results have been reported as providing no significant indication of magnetoreception or any other nonvisual directional sense (Gould and Able 1981, Field et al. 1984, Able and Gergits 1985, Gould 1985, Westby and Partridge 1986), and his methodology and statistics have been criticized (Dayton 1985). He has vigorously rebutted these critiques, asserting that an analysis of the findings of all repeat experiments by other researchers employing statistical methods based upon Fisher’s suggested procedure for combining probabilities has “produced results with a conservative probability of occurring by chance that is less than 0.001 with respect to non-visual orientation and less than 0.005 with respect to magnetoreception” (Baker 1987a:701). Bovet (1992) criticizes Baker’s application of the method of metaanalysis suggested by Fisher but acknowledges that his critique does not prove that humans have no nonvisual homing ability.

DIRECTIONAL SENSE IN HUMAN NAVIGATION

Given the disputed nature of the experimental evidence for human magnetoreception, it is useful to turn to another source on human orientation that may bear on the issue. During the 19th century and in the first decades of this one, many writers speculated that humans possessed an innate sense of direction. According to Gatty (1958:49–51), this belief was fueled in part by the uncritical testimony of explorers and missionaries about the seemingly superhuman navigational ability of Native American guides, Pacific island seafarers, Siberian sleigh drivers, and others. Even Darwin (1873:418) joined in the discussion, citing reports of such navigational feats and suggesting that "some part of the brain is specialized for the function of direction." Starting as early as 1882, a number of writers proposed that this sense of direction might be based on an awareness of the earth’s magnetic field (see Baker 1981:48 for references). By the middle of this century, however, speculation about an innate directional “sixth sense” had fallen into disrepute as alternative explanations for noninstrument navigational abilities were suggested, among them observation of the rising and setting points of the stars, the alignment of sand dunes and snow drifts with the prevailing wind, and other directional cues. For example, Gatty (1958:17) stated categorically,

I do not believe that there is any such sixth sense. A man with a good sense of direction is, to me, quite simply an able pathfinder—a natural navigator—somebody who can find his way by the use of the five senses (sight, hearing, taste, smell and touch—the senses he was born with) developed by the blessing of experience and the use of intelligence. All that the pathfinder needs is his senses and knowledge of how to interpret nature’s signs.

Gatty’s opinion was in part derived from his own analysis of how Pacific islanders navigated their canoes without instruments and has been widely shared among prominent students of Pacific island canoe navigation. For example, in their detailed studies of navigation on Puluwat and Satawal, a pair of atolls of the central Caroline Islands of the Federated States of Micronesia on which the traditional art still flourishes, neither Gladwin (1970) nor Thomas (1987) allocated a role to any sensory input other than that which, in the words of Gladwin (1970:145) is “seen, felt, heard or smelled.” Similarly, in his exhaustive analysis of navigation throughout the Pacific islands Lewis (1972:120–21) denied that indigenous navigators had a directional “sixth sense,” although he did allow that they employed a time sense in judging the speed of their canoes.

The standard model for Pacific islanders’ navigation can be briefly summarized as follows: Navigators orient themselves and set their course by night on the memorized rising and setting points of key stars and constellations and by day on the sun when low in the sky (its changing position having been calibrated against the faint star field of the dusky or dawn sky). When clouds obscure the stars or sun (or the moon, a secondary guide) and when the sun is too high to yield a bearing, navigators orient primarily on the dominant swells, the direction of which they constantly monitor in relation to star or sun bearings. They compensate for estimated current set and leeway drift across a course by steering along the appropriate star or sun bearing to one side or other of the direct heading to the destination, making corrections as indicated by dead-reckoning estimates of the canoe’s course and distance made good and by changing wind and sea conditions. To expand the range at which an island can be detected, they watch for such signs as cloud buildup over a high island, disruptions in the swell pattern, the flight of land-nesting birds that daily range out to sea to fish, and other visible cues. According
to this model, navigators depend upon their vision with some assistance from their vestibular systems in judging orientation or proximity to land by the way the swells pitch or roll their canoes [Finney 1993].

POSSIBLE INSTANCES OF MAGNETORECEPTION IN CANOE NAVIGATION

Since 1976 my colleagues and I have sailed over 50,000 nautical miles in a series of experimental voyages throughout Polynesia made on board the reconstructed double-hulled sailing canoe Hōkūle'a [Finney 1994]. Virtually all the long crossings, such as those between Hawai'i and Tahiti and between Tahiti and New Zealand, have been navigated without instruments. The first such crossing, that from Hawai'i to Tahiti in 1976, was navigated by Mau Piaiulug, a master navigator from Satawal. Thereafter, most of the crossings have been navigated by Nainoa Thompson, a Hawaiian who with Piaiulug's aid has developed his own quasi-traditional way of navigating without the aid of instruments, charts, or other devices. Analyses of the navigation on the many crossings are basically consistent with the standard navigation model summarized above [Lewis 1977; Finney 1977, 1993, 1994; Finney et al. 1986]. However, close scrutiny of Nainoa Thompson's navigational performance reveals instances in which he seems to be able to orient himself or visualize the bearing and distance to an unseen island in a way that cannot be fully explained by reference to his observations of the sky and the sea and dead-reckoning calculations based upon these observations.

The first time Nainoa [as he is commonly called] realized that he was able to orient himself without direct cues from the sky or ocean swells was in 1980, on his first long voyage as navigator. He was taking Hōkūle'a from Hawai'i to Tahiti, following a curving route dictated by wind patterns which stretches over almost 3,000 miles of open ocean. He was particularly anxious about being able to keep the canoe on course in the doldrums—the zone of confusing calms alternating with spells of highly variable winds located between the northeast and southeast trade-wind belts, usually between 5° and 9° north of the equator. There spells of leaden skies and utterly flat or wildly chaotic seas often prevent the navigator from orienting on the stars, sun, or swells. Upon sailing into the doldrums on this crossing Nainoa had what he calls a “most powerful” experience, which, as he recounted to a documentary film maker [Evenari, Jhirad, and Finney 1993:74–75; cf. Kyselka 1987:206–8], began with his misgivings about navigating through this problematic region:

I just dreaded the doldrums, ‘cause I had no confidence that I could get through it. I limited myself to thinking that I could only really accurately navigate with visual celestial clues. And getting into the doldrums where there’s a hundred percent cloud cover all of a sudden I would be blind. And that’s what happened. We got in the doldrums, and it was just a mess. It was hundred percent cloud cover, the wind was switching around, it was about twenty-five knots and we’re going fast and that’s the worst thing you want to do is go anywhere and not know where you’re going. I was just fighting it to search in this kind of black. It was nighttime, the sky, everything, was black and I couldn’t find anything with my eyes.

It was like I just got so exhausted that I just backed up against the rail, and it was almost as if, and I don’t know if this is completely true, but there was something that allowed me to understand where the direction was without seeing it. And it was almost like when I just gave up fighting to try to find something with my eyes. I just settled down and then all of a sudden it was like this warmth came over me... . When I sat back and leaned against the rail, I felt this warmth come over me and all of a sudden I knew where the moon was. But you couldn’t see the moon it was so black, and then I directed the canoe with all this total confidence at a time when I had already convinced myself prior to the voyage that I would have no confidence in knowing where to go. And I turned the canoe to this particular direction, got things lined up, felt very, very comfortable in this cold, wet, rough environment and then there was a break in the clouds and the moon was there.

Although when Nainoa was interviewed neither he nor the interviewer was aware of the experimental work on human magnetoreception, the way he described the experience fits well with the concept of magnetoreception as an unconscious sense. Furthermore, he went on to say that he could not explain the experience in terms of the way he thinks about navigating. He has since reported having had similar experiences on later voyages and told me that he now tries to cultivate this ability to judge direction without any visual cues. In so doing, he says he strives to keep his mind blank and avoids straining to detect direction from the wind, swells, or glimpses of celestial bodies through the overcast. Then, when he does get a directional feeling, he tries to accept it without question, "for if you doubt your feelings you are lost."

An experience recounted by the Argentinean sailor Alberto José Torroba is similar to Nainoa’s, although Torroba consciously sought to sense his direction through magnetoreception. Sailing alone from Panama to the Philippines in a 15' dugout canoe rigged for ocean sailing, Torroba headed southwest after clearing the Galapagos. On the fourth night out his unstable vessel capsized, throwing him into the sea along with most of his supplies and all his rudimentary navigation aids—a small hand compass, a chart of the Pacific, and a plumb bob (used for sighting when a star is at its zenith, a way of determining latitude). Upon righting his vessel, he resumed sailing southwest, using the stars, sun, and swell patterns to maintain his course—a skill he had developed during his previous voyages. After a week of
smooth sailing, however, came three days of cloud, rain, shifting winds, and chaotic seas, which totally disoriented him. Torroba [1992:48] writes that in this desperate situation he remembered that animals, especially migratory birds, can sense magnetic poles, so I tried my luck doing the same. I slowly rotated my body and head 360 degrees, again and again, until I found that in a certain direction I had a different feeling. It was hard to say what it was, but it seemed that my mind was a bit more calm when facing that direction. And being in the Southern Hemisphere, I assumed it was south. So I kept sailing what I assumed to be west. And when the sky finally cleared one night, I realized that I was indeed going exactly west. I tried this procedure about 10 more times during my journey, and it always worked. The only thing I needed to make it work was to really need it, because it requires very strong concentration.

Both these examples are consonant with experimental findings about the hierarchical relationship of orientation by means of visual cues from the sun and stars and from magnetoreception in avian and human subjects. Similar to the findings for birds, the evidence for magnetoreception in Baker's [1987b] sighted walkabout subjects is strongest when they walk under overcast day-time skies or when the sun is too high to clear yield directional cues. Nainoa, like traditional Pacific island navigators, orient himself primarily by visual cues provided by the heavens and the sea and secondarily by the feel of the swells, as apparently does Torroba when he is not using his compass and other aids. Yet in an emergency both were apparently able to tap into a sense of direction. Could it be that in learning how to orient visually by taking bearings from the stars, sun, ocean swells, and other environmental cues and, more recently, by reference to a magnetic compass and more sophisticated devices we humans have so buried our magnetic sense that it surfaces only in desperate situations?2

To reach a distant, unseen objective, a navigator bereft of compass, charts, and other aids needs more than just the ability to orient himself and then set his vessel on the proper course. He must also be able to keep track of his progress so as to make any necessary course adjustments. In Western navigation keeping track of a vessel's progress without using astronomical observations (and now satellite signals) to make precise latitude-longitude fixes has been called "dead reckoning." This term of obscure etymology refers to tracking a vessel's position by laying off on a chart, with due allowance for current and lee, courses steered (derived from compass bearings) and distances run (derived from a taffrail log or other measuring device) from the last known fixed position.

How were Pacific islanders able to perform this function without the aid of charts, compasses, and distance-measuring devices? The best data come not from Polynesia, where the traditional methods were largely abandoned before they could be fully recorded, but from Satasala and a few other remote atolls in the central Carolines, where traditional navigation is still alive and well. Instead of simply visualizing his canoe moving toward its destination, the Carolinian navigator employs a "reference island" located to one side of the course line to divide that line into successive segments called etak. By mentally sighting over the reference island (which is too far away to be seen) to the horizon, the navigator visualizes the shifting of the bearing of that island from one star compass position to another. Each shift marks the completion of an etak in that the bearing mentally drawn back through the course line segments that line. When, therefore, the proper number of etak has been completed, the canoe should be off the target island [Gladwin 1970:183-89; Lewis 1972:133-45; Thomas 1987:77-83].

However alien to Western practice this Carolinian form of dead reckoning might appear, the basic inputs of courses run, distance covered, and effects of current and leeway would seem to be the same in both cases, although the Carolinians estimate these without instruments. So described, this dead-reckoning system does not depend upon magnetoreception as Baker [1981:106] has suggested. However, some incidents that have occurred when Nainoa has been navigating may bear on that suggestion.

Though tutored by Piallug, Nainoa did not adopt his etak system, but instead developed his own way of plotting the track of Hōkūle'a that incorporates some features of Piallug's teaching. Before each crossing he develops a "reference course"—the probable course of the canoe given the mean expected wind and current conditions over the route. During the voyage he keeps an almost constant watch on the actual heading of the canoe (judged by the stars, sun, and swells) and the speed at which it sails (judged by the rate of the water passing by the hulls). He then mentally converts these data and estimates of current conditions and leeway into deviations from the reference course line phrased in terms of images of the canoe's having sailed, for example, "one house" (1 point of his 32-point stellar compass) to one side or other of it for one day. (At Hōkūle'a's average speed of four knots, a day's sail is about 100 nautical miles.) This image then becomes the baseline for the next estimate, again phrased in terms of the deviation of the canoe from the memorized reference course line, and so on, until, after making any necessary course corrections, the target island is reached.

2. If these two can indeed orient by magnetoreception, it is open to question whether an innate polarity compass or one based on inclination might be involved. Had these incidents occurred at the geomagnetic equator, where the lines of force may be difficult if not impossible to read because they are parallel to the earth's surface, we might have been able to rule out the possibility that an inclination compass was involved. However, as Nainoa's experience occurred at about 6°-7° north of the geomagnetic equator and Torroba's at probably around 15° south of it, both may have been close enough to the geomagnetic poles that the inclination of the lines of force could have been detected.
sons of Nainoa’s dead-reckoning track [plotted after the voyage from his verbal position estimates tape-recorded each sunrise and sunset] with the actual track of the canoe [from satellite fixes recorded off the canoe and not seen until after the voyage] indicate that his dead reckoning has been broadly if not precisely accurate. Despite some misestimates along the way, he has always been able to guide the canoe to the target island and to maintain a general if not exact idea of its track along the way (Finney 1993, 1994).

So described, Nainoa’s dead-reckoning system would appear to have no need of an unconscious directional sense. However, there have been instances when in approaching an island he has developed a mental image of the bearing and distance to it without consciously going through the observations and calculations outlined above. For example, on the return voyage from Tahiti to Hawai’i in 1950 Nainoa began to doubt his cumulative dead-reckoning calculations as the canoe neared the latitude of the Hawaiian Archipelago (determined by estimating the elevation of Polaris, and he went forward to be alone and rethink his dead reckoning. He soon realized, however, that that was totally unnecessary, for he saw in his mind’s eye—correctly, it turned out—that the island of Hawai’i, the southeasternmost one of the chain, lay just over the horizon to the west. In analyzing Nainoa’s navigation, we have explained this incident and other similar ones in terms of an intuitive response based upon experience whereby he could cut through the steps of his dead-reckoning process directly to the answer (Finney et al. 1986:66–67, cf. Kyselka 1987:227).

But for one intriguing conjunction of Baker’s model with a basic working procedure followed by traditional navigators, I would probably still be fully content with such an explanation.

When navigating, traditional navigators sleep little. For example, when Nainoa is navigating Hōkūle’a he typically only takes brief naps of 10 to 20 minutes interspersed throughout the day and night. He says that he does not like to sleep longer lest his visualization of where the canoe is sailing be disrupted. Although we have been interpreting this in terms of not wanting to lose conscious sensory inputs as to the course and distance made good over time, if Baker’s stress on the importance of sleeping position for magnetoreception and his hypothesis that the magnetoreceptor is “reset” during sleep have any merit, a supplementary interpretation might be considered. It may be that navigators are also uneasy about sleeping for long periods lest their magnetoreceptors—their personal if unconscious magnetic frames of reference—be reset according to whatever direction the canoe is heading during the sleeping period.

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Anthropological Research on Contemporary Cultural Development: An Invitation to Lublin

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Anthropologists seem to have lost their traditional research subjects, there are no savages any more, no primitive societies or colonial problems, no new cultures to be discovered. In the past 50 years everything seems to have gone with the wind. This does not, however, mean that anthropologists have lost their job; on the contrary, we have much more to do than ever before, but we will have to change our scientific interests. We need to concentrate on contemporary individual and social life in the framework of the possibilities created by the new world civilisation and on the influence of historical circumstances on ongoing cultural development.

This approach may prove particularly effective in the analysis of the cultural changes taking place in Eastern and Central Europe and in the southern regions of the former Soviet Union. The main problem of these cultures is a revival of nationalism. The people of these countries are seeking their national identity, and fear and anxiety about their future cause them to oppose each other. Research there will help the people to survive, help governments to manage in these extremely difficult circumstances, and help future generations to create a new kind of relationship among cultures without frontiers that are free of racialism, nationalism, and discrimination in terms of sex, beliefs, ideology, or political views.

Europe is one of the most important world centers both from the historical and the contemporary point of view, and its future may strongly influence the future of the world. Therefore anthropological research should be concentrated on it. Especially important from the anthropological point of view is the borderland that divides Western Europe from the Eastern cultures, crossing east-
